

LAKE MANAGEMENT PLANS

Updated by Bob Jateff (7/30/04)

Water(s): Rat Lake and Associated Waters (Mouse Pond)

Location: Rat Lake lies at the south end of Whitestone Canyon about 6 miles north of Brewster. Sec. 22 31N 24E Okanogan County, WA.

Size:	Maximum Depth:	Volume:
71 acres	71 feet	8,276,000,000 lbs.

Water Source: subsurface seepage springs and snow pack run-off via Whitestone Creek.

Outflow: Inlet is from the Rearing Pond (Mouse Lake) and outlet is to Whitestone Creek (intermittent for flood control).

Management History: Rat Lake is an irrigation reservoir about six miles north of Brewster, WA. A dam was built prior to 1917, but the City of Brewster enlarged the dam a few years later for flood control. Irrigation use is minimal and the drawdown on Rat Lake is only a few feet. The lake is managed for trout fishing, with a split season on type to maximize angler use. Between December 1 and March 31 a trout fishery with statewide rules applies. Beginning April 1 and continuing through November 30, a catch and release with selective gear restrictions applies. Most fishing during the winter season occurs in December, before the road closes from snow accumulation, and in late February through March when access is restored. The additional opportunity offered through the catch and release season began in 2000.

Angler interest for the selective gear fishery has increased directly with public awareness. It is likely the fishery will equal or surpass the effort of the winter bait fishery. The winter fishery probably supports about 50 angler trips per week. Most anglers for the winter fishery are local to north-central Washington. The catch and release season has a whole different following, with about half the anglers being local and the other half being out of area. Estimated effort for the new catch and release season is 25-50 angler trips per week.

Rat Lake is stocked with 8,000 rainbow trout fry <100 fpp and 2,000 brown trout fingerlings <40 fpp annually in the spring. The lake also receives Eastern Brook trout that recruit from the naturally reproducing population in Mouse Lake via Whitestone Creek.

Rat Lake has been rehabilitated four previous times; 1958, 1970, 1974, 1985, and 2005. Shiners and carp were the target in 1958; spiny rays and catfish the target in 1970 and 1974; catfish the target in 1985. The 1970 effort was successful at eliminating all fish species, but locals were known to have restocked the lake with crappie and bass. The population explosion was remarkably fast, since survival of the 1973 fry plant was essentially zero. Recognizing the difficulty to maintaining a good trout fishery in the presence of vociferous spiny ray advocates, the season was changed to a winter one.

The brown bullhead population was likely not completely eliminated during the 1985 lake rehabilitation. Brown trout have been planted annually to help reduce the bullhead population and provide variety for trout anglers. Two 50 ft. gill nets, set over night on June 22, 1999, had 188 brown bullheads (6-8") and eight trout (rainbow and browns). The size of the brown bullheads indicated a stunted population and the thinness of the carryover trout indicated the catfish had severely reduced the crayfish population.

Threatened & Endangered Flora and Fauna: No known report exists of any threatened or endangered species habitually found in or near Rat Lake.

Current Management Objectives:

Continue to manage Rat Lake for trout fishing. December through March season, statewide rules. Five fish limit, no size restrictions. Provide at least four yearling and one carryover rainbow trout per angler trip for 450 angler trips per statewide rules season. April through November, catch and release - selective gear restrictions provide a catch rate of two fish per hour.

1. Sport Fishery Objectives:

Species	Type	Category	Number of Fish		Avg.Size	Exploit. Rate
			/hour	/Angler		
Trout	Winter	Statewide Rules	1-2	4+	11+ inches	80% 1+yr-old
				1+	14+ inches	20% 2+yr-old
Trout	C/R	Selective Gear	2	4+	11+inches	80% 1+yr-old
				1+	14+inches	20% 2+yr-old

2. Sport Angler use objective (# angler days): Winter fishery 450, C/R fishery 1,500

3. Fish Stocking Objectives:

Lake	Species	Number of Trout Stocked			Planting Month
		Total	/Acre	/pound	
Rat	Rainbow	8,000	112	<100	April
	Brown	2,000	28	< 60	April

E. Management Strategy:

- Plant rainbow and brown trout fry in early spring to maximize spring growth in the lake.
- Check yearling growth; should be about 11-12 inches, adjust stocking rate as necessary.
- Expect 80% loss of yearling fish by end of season due harvest and hooking mortality.
- Maintain about 15-20 percent of the catch at age 2+ years old, 14+ inch fish.
- Monitor angling activity and catch rates annually through intermittent creel checks.
- Monitor all fish species periodically by electrofishing or netting.
- Control undesirable fish species with rotenone when trout survival is inadequate to produce an acceptable fishery.